

CLAIM AMENDMENTS

Claims 1-2 (Canceled).

Claim 3 (withdrawn).

Claim 4 (withdrawn).

Claims 5-7 (Canceled).

Claim 8 (withdrawn).

Claim 9 (withdrawn).

Claims 10-13 (Canceled).

Claim 14 (withdrawn).

Claim 15 (withdrawn).

Claim 16 (withdrawn).

Claims 17-19 (canceled).

Claim 20 (new): An integral multi-stack system of fuel cell, comprising:

a plurality of fuel cell stacks, each of which comprises a fuel inlet port, an oxidant inlet port, a coolant inlet port, a fuel outlet port, an oxidant outlet port, and a coolant outlet port which are used for fuel supplying, oxidant supplying, coolant supplying, exhausted fuel discharging, an exhausted oxidant discharging, and a coolant discharging for said stack unit respectively; and

a manifold functional frame, which comprises:

a non-porous body which is provided between said fuel cell stacks for transversely and spacedly mounting said fuel cell stacks at two sides of said non-porous

body, and comprises a main fuel supply passage defining a main fuel inlet at a first side of said non-porous body, a main oxidant supply passage defining a main oxidant inlet at said first side of said non-porous body, a main coolant supply passage defining a main coolant inlet at said first side of said non-porous body, a main fuel discharging passage defining a main fuel outlet at a second side of said non-porous body which is opposed to said first side, a main oxidant discharging passage defining a main oxidant outlet at said second side of said non-porous body, and a main coolant discharging passage defining a main coolant outlet at said second side of said non-porous body, wherein said main fuel supply passage, said main oxidant supply passage, said main coolant supply passage, said main fuel discharging passage, said main oxidant discharging passage, and said main coolant discharging passage are longitudinally extended along said non-porous body,

wherein said non-porous body further comprises a fuel supply sub-passages communicating said fuel supply passage with each of said fuel inlet ports, an oxidant supply sub-passages communicating said main oxidant supply passage with each of said oxidant inlet ports, a coolant supply sub-passages communicating said main coolant supply passage with each of said coolant inlet ports, a fuel discharging sub-passages communicating said main fuel discharging passage with each of said fuel outlet ports, an oxidant discharging sub-passages communicating said main oxidant discharging passage with each of said oxidant outlet ports, and a coolant discharging sub-passages communicating said main coolant discharging passage with each of said coolant outlet ports, wherein a supply and a discharge of said fuel, oxidant and coolant are spacedly provided on two ends of said non-porous body respectively, so that for each of said fuel cell stacks, a material flow of said fuel, said oxidant and said coolant between said fuel inlet port and said fuel outlet port, said oxidant inlet port and said oxidant outlet port, and said coolant inlet port and said coolant outlet port respectively are independent from said other fuel cell stacks so as to simplify a flow network within said fuel cell and to minimize a flow impedance and energy loss thereof.

Claim 21 (new): The integral multi-stack system of fuel cell, as recited in claim 20, further comprising an attaching means for firmly attaching said fuel cell stack to said body of said manifolding functional frame, wherein when each said fuel cell stack is securely attached to said body of said manifolding functional frame, said fuel inlet, said oxidant inlet, said coolant inlet, said fuel outlet, said oxidant outlet, and said coolant outlet of said fuel cell stack are capable of air-communicating with said fuel supply sub-

passage, said oxidant supply sub-passage, said coolant supply sub-passage, said fuel discharging sub-passage, said oxidant discharging sub-passage, and said coolant discharging sub-passage of said manifolding functional frame so as to make said main passages and said sub-passages to be used to selectively supply and discharge gas and liquid used by said fuel cell stacks integrated.

Claim 22 (new): The integral multi-stack system of fuel cell, as recited in claim 21, wherein said attaching means comprises a pair of end plates being pulled towards each other by a plurality of long insulate bolts passing through a plurality of corresponding screw holes formed in said manifolding functional frame so as to sandwich said pair of fuel cell stacks between said end plates in a replaceable manner.

Claim 23 (new): The integral multi-stack system of fuel cell, as recited in claim 20, wherein said integral multi-stack system of fuel cell further has a sealing plate for fluid tightly connecting each said fuel cell stack to said manifolding functional frame.

Claim 24 (new): The integral multi-stack system of fuel cell, as recited in claim 23, wherein said end plate has a plurality of openings including a first fuel opening, a first oxidant opening, a first coolant opening, a second fuel opening, a second oxidant opening, and a second coolant opening which are aligned with said fuel inlet port, said oxidant inlet port, said coolant inlet port, said fuel outlet port, said oxidant outlet port, and said coolant outlet port respectively when said fuel-stack is placed thereon, and a rubber sealing ring attached on each surface of the sealing plate surrounding each said opening thereof.

Claim 25 (new): The integral multi-stack system of fuel cell, as recited in claim 24, wherein said attaching means comprises a pair of end plates being pulled towards each other by a plurality of long insulate bolts passing through a plurality of corresponding screw holes defined in said manifolding functional frame so as to sandwich each said pair of fuel cell stacks therebetween.

Claim 26 (new): The integral multi-stack system of fuel cell, as recited in claim 20, wherein said fuel is hydrogen and said oxidant is air or pure oxygen.

Claim 27 (new): The integral multi-stack system of fuel cell, as recited in claim 20, wherein a passage fitting is provided for each said main passage to facilitate an access thereof to peripheral equipment.

Claim 28 (new): The integral multi-stack system of fuel cell, as recited in claim 24, wherein a passage fitting is provided for each said main passage to facilitate an access thereof to peripheral equipment.

Claim 29 (new): The integral multi-stack system of fuel cell, as recited in claim 26, wherein a passage fitting is provided for each said main passage to facilitate an access thereof to peripheral equipment.

Claim 30 (new): The integral multi-stack system of fuel cell, as recited in claim 20, wherein said main passages are through passages through said non-porous body of said manifolding functional frame with one end thereof is sealed.

Claim 31 (new): The integral multi-stack system of fuel cell, as recited in claim 24, wherein said main passages are through passages through said non-porous body of said manifolding functional frame with one end thereof is sealed.

Claim 32 (new): The integral multi-stack system of fuel cell, as recited in claim 29, wherein said main passages are through passages through said non-porous body of said manifolding functional frame with one end thereof is sealed.